U.S. DEPARTMENT OF ENERGY

OFFICE OF SCIENCE

# DOE/SC Review

of the

# Proton Improvement Plan (PIP-II)

## Fermi National Accelerator Laboratory

**June 16-17, 2015**

**Stephen W. Meador**

**Committee Chair**

**Office of Science, U.S. Department of Energy**

http://www.science.doe.gov/opa/

# Deliverables – Due Dates



- **Closeout report (prepared in PowerPoint)**
  - Presented Wednesday, June 17
  - Instructions—slide 12
  - Template—slide 14
- **Final report draft (prepared in MS Word)**
  - Due Monday, June 22 to Casey (casey.clark@science.doe.gov)
  - Instructions—slide 13

# DOE EXECUTIVE SESSION AGENDA

**Tuesday, June 16, 2015—Comitium (WH2SE)**

| | | |
|---|---|---|
| 8:00 a.m. | DOE Executive Session | S. Meador |
| 8:20 a.m. | Program Perspective | S. Peggs |
| 8:25 a.m. | Federal Project Director Perspective | P. Carolan |
| 8:35 a.m. | Questions | |
| 8:45 a.m. | Adjourn | |

**Project and review information is available at:**

**Username:** **Password:**

# Review Committee Participants

## Stephen W. Meador, DOE/SC, Chairperson

**Review Committee**

***SC 1—Technical***

*Chris Adolphsen, SLAC
Mike Blaskiewicz, BNL
Rama Calaga, CERN

***SC 2—Cost and Schedule***

*Julia Chaffin, SLAC
Kin Chao, DOE/SC

***SC 3—Management and ES&H***

*Rod Gerig, retired ANL
Matti Tiirakari, ESS

*Lead

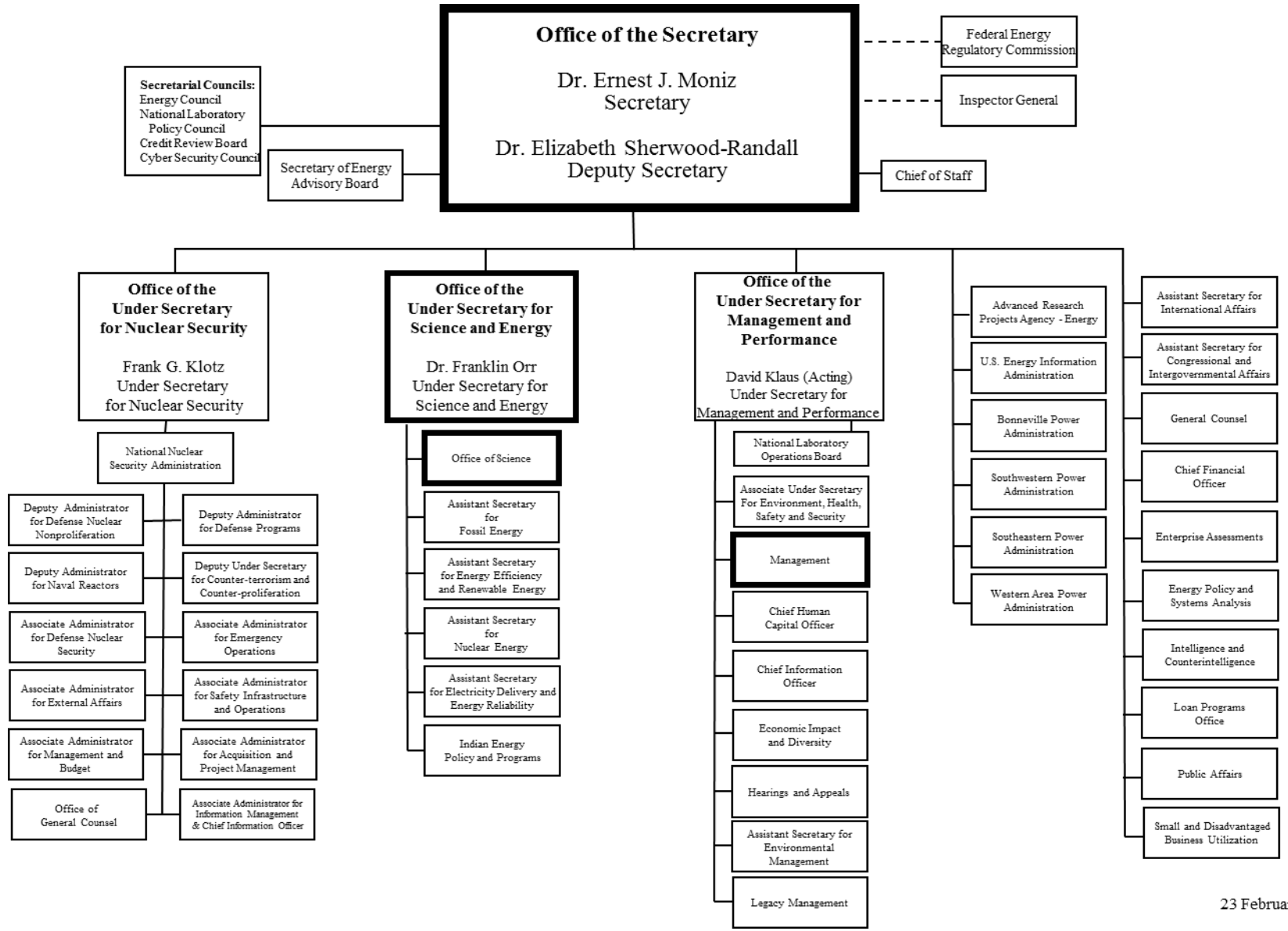
**Observers**

Mike Procario, DOE/SC
Steve Peggs, DOE/SC
Pepin Carolan, DOE/FSO
Michael Weis, DOE/FSO

U.S. DEPARTMENT OF ENERGY

# DOE Organization

OFFICE OF SCIENCE




23 February 2015

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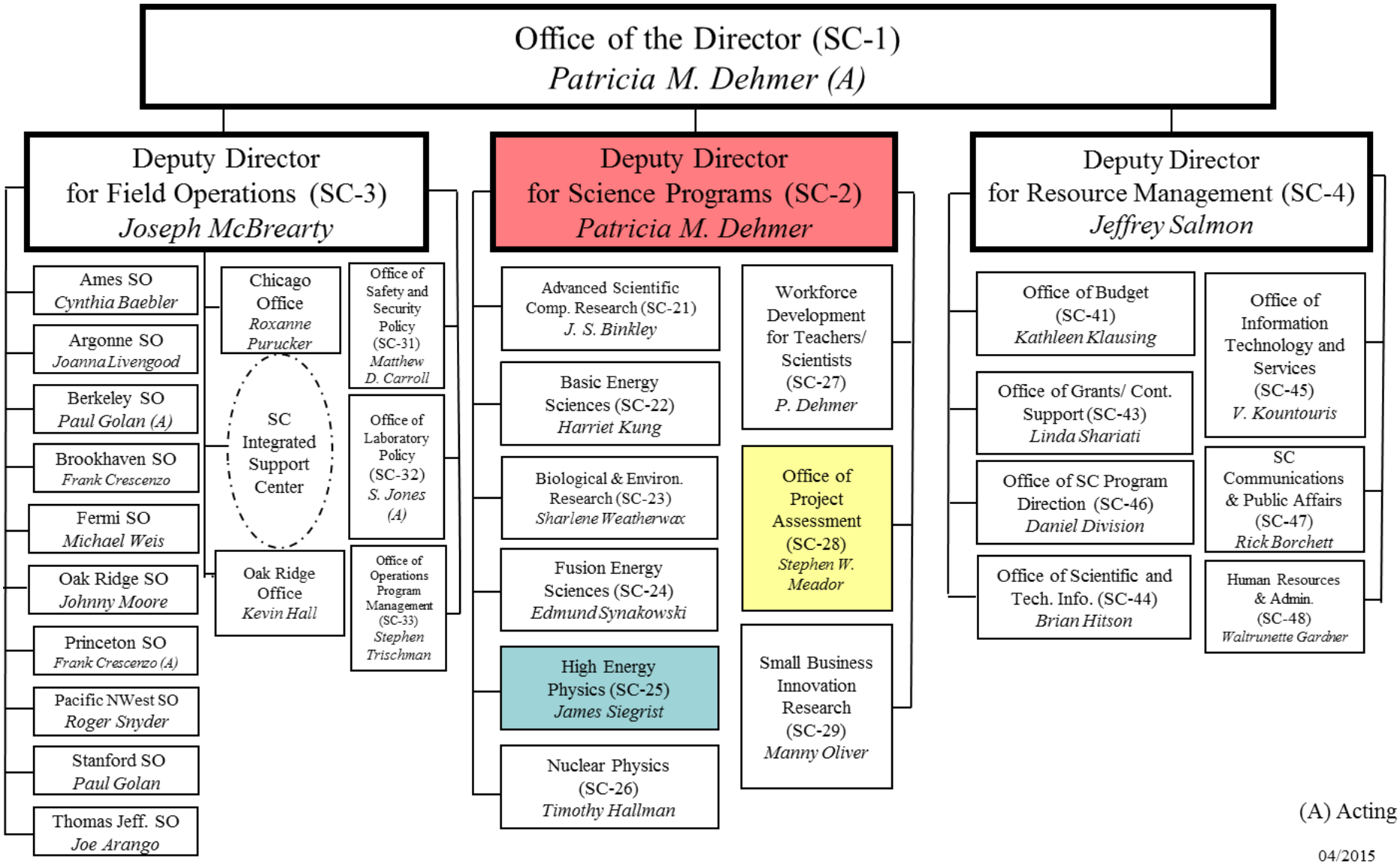
# SC Organization

OFFICE OF SCIENCE




(A) Acting

04/2015

# Charge Questions



1. Is the proposed technical concept, including both new construction and modifications to existing infrastructure, likely to satisfy the P5 recommendation? Are there major alternative technical choices? How well understood are the international in-kind contributions?

2. Is the presented cost range based on sound reasoning, consistent with experience of similar projects? Is it likely to bound the actual cost when PIP-II is built?

3. Does the scheduling strategy fit with other major projects at Fermilab?

4. Is there significant R&D that still needs to be carried out in order to implement the proposed concept? Are all the significant technical and cost risks identified? Does the laboratory have a plan, and sufficient resources, to complete the R&D in a timely manner?

5. Does the management team possess the requisite expertise and experience? Is it appropriately organized and staffed to initiate PIP-II activities?

# Agenda



**Tuesday, June 16, 2015—Comitium (WH2SE)**

| | |
|---|---|
| 8:00 am | DOE Full Committee Executive Session ..... S. Meador |
| 8:45 am | Welcome and Laboratory Strategy- **One West (WH1W)** ..... N. Lockyer |
| 9:05 am | Mission Need ..... G. Rameika |
| 9:45 am | Introduction to PIP-II ..... S. Holmes |
| 10:25 am | Break – Outside One west |
| 10:40 am | PIP-II Technical Description ..... V. Lebedev |
| 11:20 am | PIP-II R&D Program ..... P. Derwent |
| 12:00 pm | Discussion |
| 12:15 pm | Lunch – 2nd Floor Crossover |
| 1:00 pm | Reviewer Photo – Atrium |
| 1:15 pm | International Contributions ..... S. Mishra |
| 1:45 pm | Cost Range ..... D. Mitchell |
| 2:15 pm | Warm Front End and PXIE Status ..... A. Shemyakin |
| 2:40 pm | PIP-II SRF Program ..... S. Yakovlev |
| 3:05 pm | Discussion |
| 3:20 pm | Break – Outside One West |
| 3:35 pm | ES&H Strategy ..... J. Anderson |
| 3:55 pm | NEPA Strategy ..... V. Kuchler |
| 4:10 pm | Organization and Management Plan ..... S. Holmes |
| 4:40 pm | Discussion |
| 5:00 pm | DOE Full Committee Executive Session – **Comitium (WH2SE)** ..... S. Meador |
| 6:00 pm | Adjourn |

# Agenda (cont'd)



**Wednesday, June 17, 2015—Comitium (WH2SE)**

| | |
|---|---|
| 8:00 am | PIP-II Response to Questions |
| 8:30 am | Subcommittee Working Session/Report Writing |
| 10:00 am | Full Committee Executive Session/Dry Run .....Committee |
| 12:00 pm | Box Lunch Provided to Reviewers |
| 1:00 pm | Closeout Presentation to PIP-II and Laboratory Management – **One West (WH1W)** |
| 2:00 pm | Adjourn |

# Report Outline/Writing Assignments

Executive Summary ..... Chao

1. Introduction ..... Peggs
2. Technical (Charge Question 1, 3, 4) ..... Adolphsen*/Subcommittee 1
   - 2.1 Findings
   - 2.2 Comments
   - 2.3 Recommendations
3. Cost and Schedule (Charge Question 2, 4) ..... Chaffin*/ Subcommittee 2
4. Management (Charge Questions 3, 4, 5) ..... Gerig*/ Subcommittee 3

*Lead

# Closeout Presentation

# and Final Report

# Procedures

# Format: Closeout Presentation



**(Use PowerPoint / No Smaller than 18 pt Font)**

**2.1 Use Section Number/Title corresponding to writing assignment list.**

**List Review Subcommittee Members**

**List Assigned Charge Questions and Review Committee Answers**

**2.1.1 Findings – What the project told us**

- In bullet form, include your account of factual technical, cost, schedule, and management. Information provided/presented by the Project

**2.1.2 Comments – What we think about what the project told us**

- In bullet form, include your assessment of project status (observations, concerns, feedback, suggestions, etc.) based on the findings. This section carries more emphasis than the Findings, but does not require an action as do the Recommendations. Do not number your comments.

**2.1.3 Recommendations – What we think the project needs to do**

**1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.**

**For Critical Decision reviews, include a specific recommendation addressing how the Committee judged the readiness for the CD, *i.e.*:**

- **The project is ready to proceed to CD-2; *or***
- **The project is ready to proceed to CD-2, after addressing the following recommendations**

# Format: Final Report



**(Use MS Word / 12pt Font)**

**2.1 Use Section Number/Title corresponding to writing assignment list.**

**2.1.1 Findings – What the project told us**

Include a brief narrative description of technical, cost, schedule, management information provided by the project. Each subcommittee will emphasize their area of responsibility.

**Cost and schedule subcommittee should provide attachments for approved project cost breakdown and schedule. Management subcommittee should provide attachment for approved project organization and names of personnel.**

**2.1.2 Comments – What we think about what the project told us**

Descriptive material assessing the findings and making observations and conclusions based on the findings. **The committee's answer to the charge questions should be contained within the text of the Comments Section.** Do not number your comments.

**2.1.3 Recommendations – What we think the project needs to do**

**1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.**

**2.**

**Please Note: Recommendations are approved by the full committee and presented at the review closeout briefing. Recommendations SHOULD NOT be changed or altered from the closeout report to the Final Report.**

# Closeout Report on the DOE/SC Review of the

# Proton Improvement Plan (PIP-II)

## Fermi National Accelerator Laboratory

**June 16-17, 2015**

**Stephen W. Meador**

**Committee Chair**

**Office of Science, U.S. Department of Energy**

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- **Findings**
- **Comments**
- **Recommendations**

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- **Findings**
- **Comments**
- **Recommendations**

| PROJECT STATUS | | |
|---|---|---|
| Project Type | MIE / Line Item / Cooperative Agreement | |
| CD-1 | Planned: | Actual: |
| CD-2 | Planned: | Actual: |
| CD-3 | Planned: | Actual: |
| CD-4 | Planned: | Actual: |
| TPC Percent Complete | Planned: _____% | Actual: _____% |
| TPC Cost to Date | | |
| TPC Committed to Date | | |
| TPC | | |
| TEC | | |
| Contingency Cost (w/Mgmt Reserve) | $ | _____% to go |
| Contingency Schedule on CD-4b | _____months | _____% |
| CPI Cumulative | | |
| SPI Cumulative | | |

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- **Findings**
- **Comments**
- **Recommendations**